

VIII

Nonart Rejections

The following sections cover some formal rejections to claims not previously discussed in detail. By "formal" is meant rejections other than anticipation, obviousness, or lack of statutory subject matter (e.g., rejections of methods of doing business, naturally occurring articles, scientific principles, etc.). See MPEP 706.03(a).

§ 63 Old Combination; Overclaiming

MPEP 706.03(i) sets out the Patent and Trademark Office's concept of general rules relative to old combination, also known as "exhausted combination":

The rejection is proper when a single reference discloses broadly a combination of the same elements functionally cooperating in substantially the same manner to produce substantially the same results as that of the claimed combination. . . .

The fact that an applicant has improved one element of a combination which may be *per se* patentable does not entitle him or her to a claim to the improved element in combination with old elements where the elements perform no new function in the claimed combination. . . .

The rejection should make it clear exactly what the combination is and why it is thought that any improved element does not modify the action of the combination.

If the entire barrel take-up of claim 15, section 11, were old, and only a new type of accumulator were provided, it would be improper to claim the combination of the new accumulator with the barrel, rotary turntable, reciprocating guide, etc., unless the accumulator cooperated in some new way with the take-up, which it most probably

would not. Since the only novel feature in such an invention would be the accumulator, it must be claimed per se.

A Patent and Trademark Office example, from an old agent's examination (October 1953), concerns a man who invented a new composition for a searchlight mirror, but then claimed the mirror in combination with all of the old elements of a standard searchlight—obviously the mirror cooperated in no new way with the bulb, power source, etc.

In *Holstensson v. V.M. Corp.*,¹ the patentees had invented the modern offset-spindle type of phonograph record changer, which replaced the prior slicer blade structure and achieved great commercial success. While the judge indicated this was a very significant invention, he held the claims not only included the novel record-dropping mechanism, but also included all of the old and unchanged elements of a complete automatic record player: turntable, pick-up arm and cycling mechanism. Neither did the specification point out what was old and what was new.

The claim in question called for the following elements (old except where italicized):

- I. In a talking machine,
 - (a) a rotatable hollow shaft,
 - (b) a turntable . . . ,
 - (c) *a post extending through the shaft and having an upper extension which is offset . . . for forming a shoulder for supporting a stack of records . . . ,*
 - (d) *steadying means . . . ,*
 - (e) *a lever pivotally mounted in said supporting post . . . ,*
 - (f) a pickup arm . . . ,
 - (g) means . . . for swinging the pickup arm . . . , *said means also rocking said lever, and*
 - (h) means for then returning the pickup arm inwards to playing position.

1. 139 U.S.P.Q. (BNA) 401 (6th Cir. 1963), cert. denied, 377 U.S. 966 (1964).

The five generally old elements, (a), (b), (f), (g), and (h), were defined only very broadly, while the new elements, (c), (d), and (e), were described in substantial detail. Unquestionably, the new record dropper cooperated with the old cycling mechanism in no basically new way.

An earlier patent to one of the patentees claimed the same general combination, with a different form of record dropper. The fact that there was a prior patent should theoretically have been immaterial to the overclaiming question, but it seems to have influenced the judge. The patented changer enjoyed great commercial success, all manufacturers but the defendant had taken licenses, the patent had previously been held valid and infringed in another circuit (Illinois), and the defendant did not even contest the district judge's holding that the invention was unobvious. The sole issue was the formal ground of old combination or overclaiming. The court even held that "the spindle-type record dropper was new and constituted invention [meaning it was unobvious]."

The court then held the claim invalid, (emphasis added):

We come, finally, to the critical question for our decision, namely, will the owner of a patent which, *in part, contains patentable invention*, be denied recovery from one who clearly infringes the part of the patent which is invention, merely because the patent is not a true combination and claims as part of the invention that which is old and disclosed in a prior patent? We are of the opinion that we must answer in the affirmative. Such a holding appears unfair unless there is a policy of patent laws which, in its effect, visits total forfeiture upon a patent which attempts to extend its monopoly to something already patented. There is such a policy.

Claiming more than the invention had been called "overclaiming." But that term seems inaccurate, since a subcombination claim to $A+B+C$ is *broad*er than a combination claim to $A+B+C+D+E+F$, etc. Thus, it seems the big combination claim would be *under*claiming the invention. In fact, had *Holstensson et al.*

attempted to file for reissue, to eliminate the old elements, the Patent and Trademark Office would have held that to be a *broadening* reissue.

Regardless of any theoretical discussion of the word "overclaiming," the *Holstenonson* case is a strict decision clearly teaching that one should be very careful to claim *only his new invention*, detached from a lot of old things. This type of case, as well as rule 75(e), should point the way toward *Jepson*-type claims (section 57) or subcombination claims (section 59), whichever are appropriate. This is of the utmost importance in view of such language as "total forfeiture!"

It is a little difficult to understand why people insist on pursuing narrower claims to large combinations. Perhaps one factor is the thought that royalties or damages might be based on the value of the large combination instead of "the Invention." This is probably erroneous in theory, but may be significant in practice.²

In keeping with its custom of discarding or drastically liberalizing nonart rejections³ the C.C.P.A. threw out the classic "old combination" doctrine in 1969.⁴ The invention concerned computer programs. Certain claims were rejected as "drawn to the old combination of a programmed computer and a plotting device, which combination is shown to be old by . . . [a reference]." Here the novelty was strictly in the computer program.

The court quoted MPEP 706.03(j), stating that the MPEP "statement has the support of many cases."

The court then held that there was no statutory basis for the rule, as stated, and rejected it. The court discussed the cases calling this "overclaiming" and rejected that, as suggested above by this author.

2. See *Crisman, Vending an Old Combination: A Patent Misuse-Antitrust Problem*, J. Pat. Off. Soc'y 649 (1969) (further discussion of doctrine and problems generated in licensing subcombination patents).

3. See method functional of apparatus (section 40), product-by-process claims (section 46), new-use claims and preamble limitations (section 55), mental steps (section 57), aggregation (section 61), printed matter (section 62).

4. *In re Bernhart and Fetter*, 163 U.S.P.Q. (BNA) 611 (C.C.P.A. 1969).

Such statements [about overclaiming] are indeed puzzling in view of the fact that the addition of elements to a claim *narrows* its scope and thereby creates a lesser monopoly. Others have said that the combination is not new, or is obvious, if no new coaction or result is obtained. This too is unsound, since it is not the result which is to be patented but the recited machine, composition, etc. If the prior art does not show or suggest that improved element itself, it defies logical reasoning to say that the same prior art suggests the use of the improved element in a combination.

The court next reasoned that, under the present statute, the old combination rejection could only be based on 35 U.S.C. section 112, lack of "particularly pointing out and distinctly claiming." The court then held that the claims in issue were particular and distinct. Note, there is nothing peculiar about old combination claims that would make them as a class nonparticular or indistinct. The court thought that, if the plotter were put in the preamble à la *Jepson* (section 57), it would "greatly increase the number of words"; and, if eliminated (as a subcombination claim, section 59), it would not make the claims "more particular or distinct, since the monopoly . . . would be substantially broadened." In *Ex parte Barber*,⁵ the Board held that *In re Bernhart* had abolished the old combination doctrine.

Although one can presumably obtain old combination, aggregation, new use, function of the machine, etc., claims from the Patent and Trademark Office, since it generally must follow the C.C.P.A. and the Federal Circuit the status of such claims will be in doubt until the Federal Circuit, has spoken. In all such situations, it is recommended that all other forms of less controversial claims also be obtained just in case.

The classic "old combination" rejection did not apply where the subcombination was only *intended* for use in the combination, but the old elements were not positively recited in the claim.

For example, in *In re Rohrbacher and Kolbe*,⁶ claim 1 in question

5. 187 U.S.P.Q. (BNA) 244 (Bd. App. 1974).

6. 128 U.S.P.Q. (BNA) 117, 119 (C.C.P.A. 1960).

was directed to a special cooling pump designed for use with a particular kind of engine, but the engine parts were not made positive elements of the claim. claim 1 read:

1. A cooling liquid pump for engines having parallel rows of liquid cooled cylinders and comprising an elongated pump casing adapted to extend between said rows of cylinders and to be secured at the opposite ends thereof to the liquid cooling cavity walls of said rows of cylinders.

said casing being formed to provide . . . [certain chambers defined in detail], . . .

said casing ends being formed to provide outlet ports . . . [defined] and being adapted to provide communication between said discharge chamber and the cooling liquid cavities within said cavity walls of said rows of cylinders. . . . (Paraphrasing and emphasis added to show relation to the engine.)

In reversing an old combination rejection, the court held:

The first ground of rejection is based on the board's holding that the claims are not drawn merely to pump structure, as contended by appellants, but that the engine forms a part of the claimed combination.

It is clear that the engine is not positively recited as an element of any of the claims. It is referred to only by such statements as that the pump is "for" engines of a particular type and that the pump chambers are "adapted" to communicate with certain portions of the engine. We are of the opinion that such statements are intended merely to define the structure of the pump itself and that, as stated in appellants' brief:

"The pump defined by the claims may be separated from the engine and carried away from the engine. The claims still read on the pump after it has been carried away." . . .

The appealed claims do not state that the article claimed is an engine or includes an engine, but merely that it is for an engine or is adapted to be connected therewith. Such statements of adaptation for an intended use have been held not to limit the claims to the particular use specified. *Brown Mfg. Co. v. Deere et al.*, 61 F. 972 (C.C.A. 7).

While the device recited in the appealed claims is intended to be used with an engine and has a particular structure adapting it for such use, the claims define only the structure of the pump itself and not a combination of the pump with an engine.

Another example of how to avoid the "old combination" doctrine, while retaining some aspects of the combination in the claim, is to use an "In a" claim discussed under section 59 on combination and subcombination. One can claim the subcombination for use in the combination, with the subcombination elements *adapted* to do things to the elements of the combination. Dean's claim 3 in *In re Dean*⁷ trod a very fine line to avoid old combination:

In a camera having a shutter mechanism, including two independently operable shutter-actuating elements, a *shuttering apparatus for effecting a precisely predetermined camera exposure comprising:*

[1] a pair of electro-responsive devices adapted to be individually coupled to said [shutter-actuating] elements; . . .

[7] and an electrical time-constant circuit responsive to . . . for rendering said discharge device conductive to develop a delayed pulse . . . to cause its associated electro-responsive device to *complete an exposure.* (Emphasis and paraphrasing added).

The claim had been rejected, among other grounds, as drawn to an old combination of a timing circuit and an old shutter mechanism.

The C.C.P.A. ruled that the claim was a subcombination claim to the timer per se, not a claim to the combination of the timer and shutter. The preamble limitations "In a camera" and "for effecting a camera exposure" were not considered positive elements of the claim. With respect to "adapted to be coupled," the court stated:

To state mere *adaptability* of these parts of the timer to perform the coupling function does not import into the claim the shutter. . . . The above clause is a limitation of element [1] but not an inclusion of shutter elements.

7. 130 U.S.P.Q. (BNA) 107 (C.C.P.A. 1961).

Similar comments were made with respect to such clauses as "to cause its associated . . . device to complete an exposure." This was merely a statement of the *reason* why the pulse is developed at all, a statement which, together with the preamble we think improves the clarity of definition of the elements of the timer, and nothing more."

These types of claims, then, are really only special forms of subcombination claims, sort of hybrids spelling out inferentially enough of the combination details to give meaning to the subcombination elements, but not including such details in the claim. This seems to be a highly useful type of claim in an appropriate case. (See further discussion in section 56⁵⁴ combination and subcombination. Compare also, with the discussion in section 52⁵⁵ of new use claims, concerning pre-amble statements of intended use.)

In 1971, the Seventh Circuit followed the *Lincoln Engineering and Holstensson* cases on old combination, without any question, but held that the claim in question was not drawn to an old combination since all of the elements cooperated to perform a new function.

Summary

Beware of old-combination claims. Claim the new things your inventor contributed, not in combination with a lot of old and unchanged things. Point out what your inventive contribution is, not the old environment where it is used. Use Jepson claims (section 57) or subcombination claims (section 59) to avoid this problem. In addition to avoiding invalidity on a purely technical defense, claims to "the invention" are better received by the examiner and more likely to be allowed.

§ 64 Aggregation

A claim to an aggregation is unfortunately very easy to draft. The word "aggregation" is used by various people to mean different things. MPEP 706.03(i) clears that confusion:

Confusion as to what is meant can be avoided by treating all claims which include more than one element as combinations (patentable or unpatentable) if there is actual cooperation between the elements, and as aggregations if there is no cooperation.

Example of aggregation: A washing machine associated with a dial telephone. Example of old combination: An improved carburetor claimed in combination with a gasoline engine.

The statutory classes, particularly the class "machine," are limited by court decisions to "combinations": that is, structures in which the parts cooperate to achieve a result. It has been said⁸ that an aggregation is like a track team, while a true combination is like a football team. In a famous case,⁹ a pencil with an eraser on the end was held to be unpatentable, at least in part because it was an aggregation of parts and the statute did not authorize such claims. MPEP 706.03(i) states:

A claim is not necessarily aggregative because the various elements do not function simultaneously. A typewriter, for example, is a good combination. See also *In re Worrest*, 40 C.C.P.A. 804, 96 U.S.P.Q. 381 (1953). Neither is a claim necessarily aggregative merely because elements which do cooperate are set forth in specific detail.

Reanalyzing *Reckindorfer*, aside from the major commercial success of pencils with erasers, there is an obvious advantage in being

8. *Skinner Bros. Belting Co. v. Oil Well Improvements Co.*, 12 U.S.P.Q. (BNA) 61, 63 (10th Cir. 1931).

A rough analogy, that cannot be pressed too far, has repeatedly occurred to me in considering this question. I think of a football team as a combination; one passes, one receives, another blocks, another runs, and still others hold the line. Eleven men are doing different things, each in his own way, and not always simultaneously; yet they are working to a common end, to advance the ball; and they co-act as a unit. I think of a track team as an aggregation; one runs, another hurdles, another jumps, another throws. They all work for a common general end, to amass points for their alma mater, but there is lacking the vital spark of cooperation or coordination. They work, not as one unit, but as several. In the case at bar, we have no doubt that the device is a combination and not an aggregation. A single object is to be accomplished—to prevent escape of the oil from the well. All the elements coordinate in working to that end. It is not a relay of horses from London to Bath; it is a three-horse hitch to the same coach. We conclude that the first patent is valid.

9. *Reckindorfer v. Faber*, 92 U.S. 347 (1875).

generically referred to as "a conductive stripe" or even "a stripe"; the separation of alcohol from a water solution by fractional distillation or by solvent extraction in section 37, which may be generically recited as "separating."

A generic claim is one that defines the element in question with sufficient breadth to cover all of the disclosed species, and often also additional undisclosed species (see MPEP 806.04(d)), while the species claims cover the separate embodiments one at a time. There may be subgeneric claims that cover some, but not all, of the species. Note that, if no allowable generic claim is presented, a requirement for restriction among disclosed species is likely, called "election of species."⁷⁰ After election, all claims readable on the species are examined. The ones not elected are not examined, but may be made the subjects of divisional applications. However, if a generic claim is eventually found allowable, the restriction requirement is typically withdrawn. Therefore, the practitioner should not be concerned about whether a claim is a generic or species claim. Just write claims seeking the broadest scope of protection that the disclosed invention and the prior art will allow. The claims should also be broad enough to cover all species, if possible.

If no concrete generic word is apparent, a means-plus-function clause may be appropriate to provide a generic expression, as outlined in section 31.⁷¹ In chemical cases, a *Markush* group is always a generic expression, as discussed in section 50. Of course, alternative expressions cannot be used to make a generic claim, as set out in section 24, except under the *Markush* practice in section 50.

There is no special form for drafting generic and species claims. The species claims may be either dependent or independent, although the dependent claim form is especially useful and common in this situation. The practitioner makes an element of the generic claim more specific in one way for species I and in a different way for species II.

The words genus and species, in most cases, have significance rela-

⁷⁰ 35 U.S.C. section 121; rules 141, 142, 146.

tive to a particular set of claims; a generic expression (electrically conductive *metals*) may be a species of a more generic expression (electrically conductive *materials*, which also includes carbon). The words genus and species in patent law can be totally arbitrary, such as genus: mammals, species: man, cat, etc. but genus: man, species: male, female. The breakdowns are made in whatever way suits the invention. Some species, which cannot practically be further divided (sodium chloride) are referred to as "ultimate species." In mechanical cases, there would theoretically never be an ultimate species, because an element (a spring, for example) could be a species of biasing means, but would be generic to particular kinds of springs (coil springs, leaf springs), and each of these could be further defined in parallel, mutually exclusive ways.

These distinctions are not too significant as far as writing claims is concerned. They relate primarily to the question of whether one can obtain one patent (with an allowable generic claim) or several patents (in most cases where no allowable generic claim is presented).

Summary

Generic claims cover two or more mutually exclusive species, A or B, and possibly also C or D, etc., not all of which may be disclosed. Claims to the individual species cover less than the whole group of things, either one at a time, or less than all at one time. There are no special problems in writing such claims. Such claims may come up in any statutory class of utility invention: machine, process, article of manufacture, or composition of matter.

§ 59 Combination and Subcombination

Thus far, we have been considering primarily combination claims; that is, claims to complete machines, processes, manufactures, etc. A subcombination is some element or group of elements that forms a

part of the main combination (MPEP 806.05(a)). If the subcombination has utility by itself, it may be separately claimed, although restriction will often be required if the combination is also claimed. (See section 63 on old combinations as to when the combination may also be claimed and MPEP 806.05(c) as to restriction between combination and subcombination.) Subcombinations usually relate to machines, but may also be present in methods, compositions, or articles of manufacture.

As one example, the details of construction of the accumulator used with the barrel take-up arrangement of claim 14 of section ~~56~~⁵⁷ would comprise such a subcombination. If new, it could be separately claimed. Such a subcombination claim might start out: "Apparatus for accumulating an advancing strand, which comprises: . . ."

Note that, in that case, the subcombination is a complete mechanism or machine in itself, serving its own function, but which would always be used with other machines to make a combination machine.

Restriction would probably be required since the subcombination may obviously be used in other combinations and is separately classified (see MPEP 806.05(c)).

Other examples of subcombinations are a carburetor for a car, and such other major subassemblies as tires, headlights, etc. A subcombination method might be a method of accumulating strand in a take-up method, or a method of separating chemical X from Y as a part of a complete process for making Z, wherein X is a byproduct and useful to be recovered. In a composition, a subcombination might be a new compound per se, useful in killing insects, and a combination claim an insecticide containing the new compound with other materials.

Note that subcombination claims of this sort offer no special problems in claim drafting.

Another common format for subcombination claims is: "In an apparatus for doing something, an A, a B, and a C."

Note that as written, this type of claim is an exception to the general "rule" about having a transition between the preamble and the

body (section 7). But, it is preferred to include a standard transition word. Also, in this type of claim, it is less important to list all elements necessary to make a complete combination, since by definition the claim need only be to some part of the combination.

The author is not certain how far one can go in drafting fragmentary "In a" claims, covering only certain portions of a combination, where less than a complete functional subcombination is claimed. It seems that such claims might be rejected as "incomplete" (section ~~65~~⁶⁶) or lacking in utility in that they would lack sufficient structure to make a complete combination, machine or process, etc.

Another format, which combines the subcombination with a *Jepson* approach (section 57): "An improved A for an X-type system having old elements Y and Z, wherein the improved A comprises: . . ." (for example: "An improved accumulator for a strand-collecting apparatus of the type having a barrel . . ., wherein the improved accumulator comprises: . . .").

See further discussion in section 63 on old combinations, and the claim involved in *In re Rohrbacher and Kolbe*.⁷¹ That discussion is to the effect that a claim to "a cooling liquid pump for engines" of a certain type, is properly a subcombination claim to the pump.

See also *In re Dean*,⁷² discussed in section 63, to the effect that a claim to "in a camera having . . ., a shutter-timing apparatus . . . comprising:" is a proper subcombination claim to the timer, not an (allegedly old) combination of the timer and a shutter. (See also section ~~55~~⁵⁶ new uses and preamble limitations generally.)

A claim that might fit a definition of a subcombination was instead held to be for a combination. The claim in *In re Allen*,⁷³ read: "A waler bracket for concrete wall forms . . . comprising: a metal bracket . . ." The claim was held to be a bracket, which is an element of a combination, and not a subcombination. The court said: "The

71. 128 U.S.P.Q. (BNA) 117 (C.C.P.A. 1960).

72. 130 U.S.P.Q. (BNA) 107 (C.C.P.A. 1961).

73. 145 U.S.P.Q. (BNA) 147 (C.C.P.A. 1965).

bracket is a single integral entity whose shape is defined, rather than a combination of parts which is the usual nature of a subcombination."⁷⁴ Not much turns on this, except for the issue of restriction and election of claims (MPEP 806.05(a), (c)).

With respect to applicant's right to obtain subcombination claims, see *Special Equipment Co. v. Coe*,⁷⁵ discussed further in section 66 on incomplete claims.

Summary

Subcombination claims cover parts or portions of a complete combination or system, where the subcombination has utility in itself. There are no special problems in writing such claims, and they may be necessary in some cases to avoid an old combination rejection.

⁷⁴ *Id.*, 145 U.S.P.Q. (BNA) at 149.

⁷⁵ 64 U.S.P.Q. (BNA) 525 (U.S. 1945).

VII

Claims of Varying Scope

§ 60 In General

In drafting claims of varying scope, whether dependent or independent claims are used, the claim drafter should make certain that there is "a mere difference in scope" between the claims (MPEP 706.03(k)). Significant differences in scope are not required. But if two claims are so close that they cover the same thing, despite different wording, one can be rejected. This usually does not occur if there are only "a few" claims. Of course, the differences between the claims need not amount to patentable differences, but they should be as substantial as the situation permits and related to the areas of novelty. Such practice ordinarily makes the problems of duplicate or redundant claims (section 61) and undue multiplicity of claims (section 62) fairly easy to avoid. Dependent claims also help in that regard.

The narrowest claim is usually a sound "picture claim," which should probably recite by name all of the significant structure disclosed, omitting only the nuts and bolts. This should describe the commercially most effective way to carry out the invention, including all preferred conditions.

This not only protects against the copyist, but wherever possible, it is desirable to assert a narrow claim against an alleged infringer, because such a claim is harder to invalidate either on new prior art or on formal grounds (too broad, etc.).

The narrowest claim should be fairly easy to write if the structure and operation are understood. The broad claims are the most difficult to prepare, in that the claim drafter must analyze the structure, pick out its essential elements, and decide how broadly to state them. Intermediate claims should be fairly easy to prepare in that some